

ATTACHMENT D, ANNEX 25 DAM FAILURE PREPAREDNESS

I. INTRODUCTION

A. Dam Information

1. South Carolina has over 50,000 dams throughout the state. Most of these dams are small and are used primarily for recreation. Larger dams are used for the production of hydroelectricity, water supply, and flood control.
2. The Federal Energy Regulatory Commission (FERC), in combination with various power companies and municipalities, regulate thirty-two hydroelectric dams affecting South Carolina (see Tab 1). The U.S. Army Corps of Engineers (USACE) regulates five dams, dikes, and locks along the Savannah River and one in the Santee River Basin (see Tab 2). FERC does not regulate USACE projects.
3. Of the remaining dams, approximately 2313 are large enough to be regulated under state law. Most of these are privately owned and regulated by the SC Department of Health and Environmental Control (DHEC). State regulated dams are divided into three classes: high hazard, significant hazard, and low hazard (see Tab 3). High hazard are inspected by DHEC bi-annually and significant hazard dams are inspected by DHEC every three years. Low hazard dams are not inspected, but the area below the dam is checked every three years for new development and possible reclassification. Under state law, owners of high and significant hazard dams are required to maintain emergency notification plans.
4. At any given time, any of these dams may be threatened by upstream flash floods, earthquakes, neglect, or any combination of the above, which can cause personal injury or death, significant high water damage to property or additional failures to dams located downstream.

B. Impact

1. General: A dam breach at any one of the projects in South Carolina could have adverse affects to the state's infrastructure. Most counties in South Carolina have, or are located near dams. In addition, many metropolitan areas, and municipalities could be severely affected. A dam failure accident at any dam presents an off site flood hazard and would affect the following emergency

support functions: transportation, communications, water and sewer facilities, fire fighting, mass care, health and medical, search and rescue, hazardous materials, energy, law enforcement, emergency traffic management, and animal response capabilities. In order to determine the exact effects a dam breach could have on infrastructure, utilities are expected to provide to state and local governments Geographical Information System (GIS) maps of the anticipated inundation area.

2. Possible affected infrastructure may include: transportation arteries (interstates, state highways, rail lines, airports); communications, (telephones lines and stations, and broadcast media); public works and engineering outlets (water treatment, sewer, and waste water facilities); firefighting resources (hydrants, tanks, and refill locations); shelters; health and medical facilities (hospitals, EMS stations, healthcare facilities, and cemeteries); hazardous material sites (above ground and underground storage units, pipelines, and landfills); energy providers (electric facilities, distribution lines, and generating stations); law enforcement facilities; animal care facilities (zoos, poultry farms, and family pets, an estimated 60% of residents located in the state have pets, thus requiring some form of sheltering or assistance); special needs requirements (schools, day care, prisons, public recreational areas, transient populations; and governments (local, state, and federal).

II. **MISSION**

To provide operational concepts unique to dam failure response and assign responsibilities to state agencies to meet the needs of local governments following a dam failure.

III. **CONCEPT OF OPERATIONS**

- A. South Carolina Emergency Management Division is responsible for developing, coordinating, and maintaining procedures to support Attachment D to Annex 25 (Dam Failure Preparedness) of the South Carolina Emergency Operations Plan.
- B. Parent companies of all hydroelectric dams are required to develop, maintain, and exercise emergency action plans (EAPs). EAPs are maintained in the SEOC as well as respective county EOCs. Parent companies are required to completely revise and republish their EAPs every five years or when deficiencies requiring attention are identified.
- C. Parent companies are responsible for immediately notifying the state and counties at risk if unsafe conditions are detected or likely.

- D. SCEMD is responsible for ensuring all dam Emergency Action Plans are accurate and consistent with state and local EOPs. The SCEMD Dam Safety Coordinator is responsible for coordinating site-specific plans for federally regulated dams.
- E. In coordination with ESFs 6 and 16, county and municipal governments are responsible for executing evacuation and sheltering operations during dam failures.
- F. Emergency Response
 - 1. Alert and Notification
 - a. General: Alert and Notification procedures are designed to inform and instruct the populace in evacuation planning zones, and to notify federal, state and local emergency response forces. Commercial telephone systems are the primary means for alerting agencies and response elements in the event of a dam failure. These systems are expected to be operational during the initial stages of the emergency to allow notification.
 - b. State and Local Emergency Managers Notification
 - 1). Alert and Notification of State and Local Government: Each dam owner (utility/private) is responsible for notifying the State SCEMD Warning Point or EOC, and the County Warning Point or EOC of a dam failure emergency. The utility's Emergency Action Plan describes in detail procedures for notification of specific state and local emergency management organizations. Notification procedures have been developed for both Condition A (failure is imminent or has occurred) and Condition B (potential failure situation is developing) emergency classification levels. Backup communications include Local Government Radio (LGR), 800 MHz, and in a few cases, a dedicated phone system.
 - 2). Once an emergency is confirmed at the dam, the owner will issue a Condition A or Condition B, dependent on the severity of the dam breach, simultaneously make internal notification, and

notify the affected counties, state emergency management, and the National Weather Service of the situation.

- 3). After receipt of initial notification from the utility or owner, the State Warning Point will execute the Dam Failure Checklist, which includes procedures for verifying and confirming notification of affected counties.
- 4). State Emergency Operations Center (SEOC) Activation: The SEOC will be activated for either a Condition A or B event. A full activation of the SEOC under Condition A will normally include activation of the Dam Failure and Hydrology Advisory Teams and deployment of state liaison officers to the county EOCs, as well as utility/owner. Limited activation under Condition B is situationally dependent, but will normally consist of the Operations Group, and ESFs 1, 2, 5, 6, 8, 12, 13, 15, 16, and 19.
- 5). County Emergency Operations Centers (EOC) Activation: Affected county EOCs will fully activate during Condition A and will execute a limited activation during Condition B.
- 6). Utilities will activate/operate an Emergency Operations facility (EOF) at their utility during a dam failure emergency.

c. Alert and Notification of the Populace

- 1). Siren Systems: Several dams in South Carolina have siren systems to alert the populace. The purpose of a siren system is to alert residents to turn on radios/televisions and listen to Emergency Alert System (EAS) messages. EAS messages will be broadcast within minutes of siren activation. Sirens will be tested according to utility procedures. EAS will also be tested annually at the same time. Detailed information on siren locations is located in the respective Site Specific Plan.

- 2). Automated Telephonic Notification System:
 - a). County: Several counties throughout the state have a system that will allow automated telephonic notification. Notification will be prioritized based on threat.
 - b). State: The South Carolina Emergency Management Division will utilize an automated telephonic notification system to alert them of possible danger. This system may be activated upon county request.
 - c). State: Department of Health and Environmental Control (DHEC): DHEC also utilizes an automated telephonic notification system to notify health care facilities.
- 3). Tone Alert Radios: Schools, nursing homes, day cares centers and individual households may utilize tone alert radios to receive appropriate advisories.
- 4). Emergency Alert System (EAS): EAS will be activated in the event of a dam failure, and will broadcast emergency action messages.
- 5). Route Alert: Will be used as a backup, as appropriate.

d. Communications

- 1). The utility's Emergency Operations Facility (EOF): communications will be maintained through the following means:
 - a). Regular telephone lines.
 - b). The SCEMD Local Government Radio (LGR) Network and 800 MHz offers the capability for the utility to communicate with the SEOC, counties and other state and local entities. However, not all counties and agencies have access to LGR and 800 MHz.

- c). Mobile telephones.
 - d). Microwave communications systems (intra-company, if available).
 - 2). Counties: Within their jurisdiction, county communications officers are responsible for communications during a dam failure emergency.
- e. Security
- 1). Dam Downstream Area: Upon declaration of a Condition A (failure is imminent or has occurred), ESF-13 will coordinate sealing off the anticipated inundation area as deemed appropriate based on the SC Emergency Operations Plan protocols for general law enforcement and security. The South Carolina Law Enforcement Division (SLED) will coordinate with the Department of Public Safety (DPS) to develop ingress and egress points and controlled access points based on evacuation and rerouting traffic management plans. Use of South Carolina Army National Guard (SCARNG) assets and implementation of the State Law Enforcement Mutual Aid Plan (SLEMAP) may be required. The Department of Natural Resources (DNR) in coordination with DPS traffic and SLED security plans will coordinate the clearance of waterways/boat landings and the unauthorized access to areas downstream from the dam or the secure area. Some or all of the above actions may be required during a Condition B (potential failure situation is developing) declaration. A credible terrorist threat may also require increased security with neither a Condition A or Condition B declaration. Air space control will be the responsibility of ESF 1 (Transportation).
 - 2). River flood plain areas: Lakes and recreational areas along the river will be patrolled by DNR to prevent water transportation access downstream from the dam.
 - 3). Emergency Operations Facility: Utility security personnel will control entrance to the dam(s) and Emergency Operations Facilities (EOF).

f. Evacuation

1). Condition A:

a). Utility Response

If the utility determines a Condition A exist at one of their dams, the systems controller will initiate their respective call lists, located in each of their Emergency Action Plans. If the capability exists, the system controller may activate the NOAA Weather Tone Alert Radio system, or ask the National Weather Service to activate the Tone Alert Radio. NWS will broadcast a flash flood warning with information about the dam failure and immediate evacuation requirements. If the utility has a siren system, then the system controller may then activate sirens and announce a warning over the sirens' public address system. The system controller will then make notifications to the counties' EMD, SCEMD other agencies, and corporate personnel in accordance with an emergency notification flow chart maintained in the respective Emergency Action Plan For Dam Failure.

b). State Response: If conditions deteriorate gradually, the county director will ask SCEMD to make an immediate recommendation to the Governor to evacuate specified areas. If practical, a conference call will be conducted with SCEMD, the affected counties, DPS, DOT, and the utility to determine possible evacuation recommendations. However, due to the urgency of the situation SCEMD may have to make an immediate recommendation to the Governor to evacuate selected areas. Supplemental siren activation and EAS message times will be coordinated as part of this call. EAS messages will be broadcast within minutes of siren activation.

- c). County Response: County EOCs will initiate EAS messages to provide further evacuation instruction and sheltering information. If conditions deteriorate rapidly, the county directors may recommend evacuation.
- 2). Condition B:
- a). Utility Response. The utility system controller will notify the affected counties, SCEMD and other agencies and corporate personnel of any potentially hazardous situation at the dam. The utility, SCEMD and the County EOCs will coordinate requirements for a precautionary, limited evacuation of areas closest to or just below the dam.
 - b). State Response: If conditions deteriorate gradually, then the county director will ask SCEMD to make an immediate recommendation to the Governor to evacuate specified areas. If practical, a conference call will be conducted between SCEMD, affected counties, DPS, DOT, and utility to determine possible evacuation recommendations. Supplemental siren activation and EAS message times will be coordinated as part of this call. EAS messages will be broadcast soon after the siren activation.
 - c). County Response. County EOCs will initiate Emergency Alert System (EAS) messages as necessary. In addition, a conference call will be conducted between SCEMD, affected counties, DPS, DOT, and the utilities to determine possible evacuation recommendations and activation of specific notification mechanisms. The utility will provide information to the group regarding the potential for a Condition A declaration. As a precaution, selected areas may be evacuated. Siren activation and EAS message times will be coordinated as part of

this call. EAS messages will be broadcast within minutes of siren activation.

2. Zones:

For both the Lake Murray Dam and Santee North Dam, dam failure evacuation zones have been pre-identified and are located in or near the vicinity of anticipated inundation.

The purpose of evacuation zones is to allow affected residents to: determine if their home is in the inundation area; if transportation nodes will be affected; and if the related census/traffic analysis boundaries for population and dwelling commensurate with vulnerable populations. These zones separate the inundation area into divisions and include the following objectives:

- a. They must be describable over radio/TV media to public;
- b. If possible, they must be based upon easily identifiable roadways or natural features for boundary identification;
- c. The inundation areas are based on the most recent dam break analysis, contracted by the utility.

In some cases, not all of the zones are expected to be inundated and boundaries and descriptions are general in nature due to geographic feature limitations.

3. Traffic Management:

- a. General: The Sheriff as Chief Law Enforcement Officer of the county will, in coordination with the SC Highway Patrol (HP) and other law enforcement agencies, coordinate traffic evacuation activities.
- b. Routes: For zones that have been designated, evacuation routes have been established, and shelter locations have been designated for residents in each zone.
- c. Traffic Control Points (TCP): For zones that have been designated, TCPs have been established along evacuation routes and at selected points to restrict movement into the inundation area.
- d. Diversion Points: Alternate routes have been established for traffic normally entering metropolitan areas on the

interstate system and diversion points designated to facilitate the flow of traffic.

e. Special Evacuation Requirements

- 1). Evacuees who do not have transportation and confined persons who require special transportation will be provided transportation by the affected county, if available. State assistance will be available upon request.
 - 2). Schools and Day Care Facilities: Priority of evacuation assistance will be given to those facilities that have been classified as highly vulnerable. Consideration will be given to evacuating schools early in advance of a general population evacuation. For example, consideration should be given to evacuating all schools in the inundation area even though a mandatory evacuation order is limited to selected evacuation zones.
 - 3). Health Care Facilities and Nursing Homes: Licensed facilities are required to develop and coordinate evacuation plans.
 - 4). Prisoner Populations: State and county corrections organizations will develop and coordinate plans to relocate prisoners.
4. Re-Entry: Re-entry into the inundation area may not be allowed immediately after the floodwaters recede. Re-entry may be granted only after state and local emergency management officials determine that hazardous conditions have terminated. After a final decision is made by local officials, an immediate announcement to this effect will be made from the SEOC. Estimated recession times for both probable maximum flood (PMF) and a sunny day failure scenarios are contained in the Emergency Action Plan, and respective Site Specific Plan, if available.
5. Shelters
- a. Standard: Shelters have been designated in each county in South Carolina.

- b. Special Medical Needs Shelters (SMNS): Due to variations in shelter demand, SMNS sheltering will be accomplished on a case-by-case basis.

G. Training

- 1. The utility, SCEMD, and county directors are responsible for assuring the utility's dam failure training is conducted in accordance with state and federal emergency response requirements.
- 2. Drills and Exercises: An exercise simulating a dam failure accident at each utility including participation of emergency response personnel from each of the affected counties will be conducted at least once every 5 years and will be evaluated by federal observers.

H. Public Information

- 1. Dissemination of complete and accurate information to the public in South Carolina in the event of a failure at each dam is essential to promote a controlled response by the population and to instill confidence that necessary actions are being undertaken for the public's health and safety. The public, through the news media, will expect emergency instructions and on-going information regarding the incident from the utility and government at all levels.
- 2. A Joint Information Center (JIC) where federal, state, and local representatives can respond to media inquiries and ensure an orderly and coordinated release of emergency information will be established. At a minimum, SCEMD, the affected counties, and the utility will provide public information personnel to staff the JIC.
- 3. A state public information specialist will also be located at the SEOC as lead PIO. The state public information specialist will coordinate public information and EAS activities at the SEOC and maintain effective coordination and communication with the public information director at the JIC. Public information releases originating from ESF 15 in the SEOC will be coordinated with, and approved by, the Governor's press secretary or designated representative.

4. Public Education:

- a. A public information program should address potential hazards resulting from a dam failure at the dam, appropriate actions for public self-protection in the event of a failure, and state and local dam failure emergency response programs. Ideally, the utility should provide this information in the form of a pamphlet or brochure which would include the following elements:
 - 1). Possible causes of dam failures and potential threat to the population and property damage.
 - 2). Public alert and notification mechanisms.
 - 3). Appropriate actions for public self-protection.
 - 4). Sources of additional information prior to and during an emergency.
 - 5). Information relating to state, local, and the utility's response plans including but not limited to, evacuation sectors, routes, sheltering, and life saving precautions.
 - 6). Information relating to special segments of the population including schools, day cares, hospitals/nursing homes, other institutions and physically impaired, mentally impaired and transportation-dependent individuals.
- b. Educational information will be primarily disseminated through the following means:
 - 1). Printed Media: The utility should publish annually a Dam Failure Emergency Information Brochure and distribute it to all households and businesses located in the inundation area. The brochure will include information as outlined in paragraph II D 4 b above.
 - 2). The utility should continue to provide information as outlined in paragraph II D.4 above on its web site.

5. Emergency Alert System Messages: See Attachment A - EAS Messages, (Lake Murray Dam and Santee North Dam Site Specific Plans) for examples.
6. News Releases: See Attachment B (News Releases) (Lake Murray Dam and Santee North Dam Site Specific Plans) for examples.

I. Recovery

1. Temporary Housing: Initial emergency shelters may operate up to 30 days. Most, if not all, displaced persons will require temporary housing for periods of up to several months before they can return to their homes. Temporary housing assistance can be provided for up to 18 months to victims whose residences have been rendered uninhabitable by a disaster through a 100% federally funded program. Temporary housing consists of travel trailers or mobile homes that may be placed either on private property or in parks. Existing trailer or mobile home parks may be used or new parks established. Local emergency management personnel will identify these potential locations.
2. Water and Sewer
 - a. Water:
 - 1). Within the Inundation Area: Systems within the inundation area may take several week or months to repair. Federal assistance will be required.
 - 2). Outside the Inundation Area: Areas outside the inundation area may be without water service. Affected counties will establish water distribution points as coordinated with, or assisted by, state and federal agencies.
 - b. Sewer:
 - 1). Inundation Area: Systems within the inundation area may take several weeks or months to repair. Federal assistance will be required.
 - 2). Outside Inundation Area: There may be a number of persons living outside the inundation area without sewer service. Portable toilets will be provided and maintained using a formula of 2 toilets (one male and one female) per 12 homes.

IV. ESF ACTIONS

The following actions are specific to dam failure emergency response and are in addition to the actions addressed in the respective annexes in the SCEOP

A. ESF-1:

1. Develop plans to support ESF-13 operations to secure inundation areas.
2. Develop plans to support ESF-16 operations to evacuate inundation areas.
3. Develop plans to support local requests to transport personnel.

B. ESF-3:

1. Notify all water suppliers in the impact area to store as much water as possible at notification of Condition A or B, whichever occurs first.
2. Develop plans to obtain bulk and bottled water to support the population without water service outside the inundation area.

C. ESF-6:

1. Identify shelters and develop plans to support emergency shelter and mass feeding operations.
2. Coordinate with host counties concerning shelter operations at Condition A or B, whichever occurs first.

D. ESF-8:

1. Review inundation area health care facilities and nursing homes evacuation plans.
2. Provide mechanism to use reverse 911 systems to alert health care facilities located in the inundation area.
3. Develop plans to recover the deceased (to include cemeteries) as a result of dam failure.

E. ESF-9: Develop plans to support swift water rescue operations as a result of a failure at any of the dams in SC.

- F. ESF-10:
 - 1. Identify hazardous waste facilities in inundation areas.
 - 2. Develop a system to notify hazardous waste facilities in the event of a failure of any of the dams in SC.
- G. ESF-13: Develop plans for securing dams to include inundation areas downstream.
- H. ESF-15:
 - 1. Assist utilities in the development of a public information program.
 - 2. Provide an authorized spokesperson/representative to support public information activities at the JIC.
 - 3. Develop procedures to activate EAS in the event of a dam failure.
- I. ESF-16:
 - 1. In coordination with county law enforcement authorities, develop and coordinate evacuation and traffic management plans.
 - 2. Coordinate and implement procedures to route traffic around affected municipalities and metropolitan areas.
- J. ESF-19:
 - 1. Develop plans to support ESF-13 with security operations.
 - 2. Develop plans to support ESF-3 with engineering assets for debris removal.

V. RESPONSIBILITIES

- A. SC Emergency Management Division
 - 1. Preparedness
 - a. Maintain copies of and review all FERC dam emergency action plans to ensure consistency with state and local EOPs.
 - b. Analyze utility developed inundation areas to determine the threat to downstream and upstream infrastructure.

- c. Maintain copies of SC dam inventories.
 - d. Assist DHEC and utilities in the conduct of on-going statewide dam safety program, to include public information and education. Coordinate with federal, state, and local agencies to provide assistance in support of dam safety training.
 - e. Maintain response personnel and equipment readiness appropriate to existing and anticipated dam safety activities.
 - f. Coordinate site-specific plans for high risk federally regulated dams (see Tab 4).
 - g. In conjunction with the affected counties develop evacuation zones from the inundation maps provided by the utilities.
2. Response
- a. Support utilities during dam failure operations.
 - b. Coordinate with federal, state, and local agencies to provide assistance in support of dam failure operations. Establish communications and coordinate assistance with FERC and US Army Corps of Engineers, as required.
 - c. Coordinate emergency information for public release through ESF-15 (Public Information) in the SEOC.
3. Recovery
- Resume day-to-day operations as soon as possible.
4. Mitigation
- Support mitigation actions, as required.

B. Department of Health and Environmental Control

1. Preparedness

- a. Monitor and inspect all high hazard, significant hazard, and low hazard dams not regulated by FERC or USACE projects.
- b. Conduct on-going statewide dam safety program, to include public information and education. Coordinate with federal, state, and local agencies to provide assistance in support of dam safety training.
- c. Monitor precipitation forecasts that may contribute to dam failures.
- d. Monitor statewide dam safety occurrences, losses, and cause factors.
- e. Review inundation area health care facilities and nursing homes evacuation plans.
- f. Develop a notification system to use reverse 911 systems to alert health care facilities located in the inundation area.
- g. Develop plans to recover the deceased as a result of dam failure.
- h. Identify cemeteries in the inundation area and develop plans to recover remains.
- i. Identify hazardous waste facilities in the inundation area.

2. Response

- a. Activate dam failure advisory team and man the SEOC.
- b. Monitor and inspect all high hazard, significant hazard, and low hazard dams not regulated by FERC or COE for damage incurred.

3. Recovery

Conduct evaluations of dam failure, related damage and determine improvement methods.

4. Mitigation

Support mitigation actions as required.

- C. Utilities: Santee Cooper Electrical Cooperative (SC Public Service Authority); Duke Power Company; Progress Energy (in North Carolina); SC Electric & Gas Company; Lockhart Power Company; Enel North American, Inc.; Broad River Electric; Yadkin, Inc (in North Carolina); City of Abbeville (Lake Secession); SWJD (Spartanburg, Welford, Jackson, and Duncan), Inc; and Georgia Power Company.

1. Preparedness

- a. Develop and coordinate dam failure emergency action plans.
- b. Ensure compliance with Federal Energy Regulatory Commission (FERC) guidance.
- c. Inspect dams as required by FERC guidance.
- d. Participate in periodic drills and exercises of appropriate EAPs to ensure plans are accurate and feasible.
- e. Maintain personnel and equipment in a state of readiness appropriate to anticipated dam failures.
- f. If applicable, install, operate, maintain, and periodically test siren system.
- g. Assist in the development and update of Site Specific Plans for affected dams.
- h. Develop a public information program as outlined in II. D. 4., above.
- i. Develop procedures to provide timely information and recommendations to the SEOC during both condition A and B situations.

2. Response

- a. Ensure state and all risk counties are immediately notified if unsafe conditions are detected or likely.

- b. Initiate warning as detailed in each respective Emergency Action Plan.
 - c. Provide regular information updates to SEOC and threatened jurisdictions.
 - d. Provide an authorized spokesperson/representative to support public information activities at the JIC.
 - e. Monitor flood emergency to determine when it is safe for re-entry into flooded or threatened areas.
 - f. Prepare and disseminate public information through appropriate news media.
 - g. Secure dam and EOF during either Condition A or B.
- 3. Recovery

Phase down operations as directed by/or coordinated with the SEOC.
- 4. Mitigation

Conduct evaluations of dam failure related damage and determine improvements.
- D. Department of Public Safety (DPS):
 - 1. In conjunction with DNR, develop plans to clear lakes and downstream waterways in the inundation area.
 - 2. In conjunction with county law enforcement authorities, develop and coordinate evacuation and traffic management plans.
 - 3. Coordinate and implement procedures to route traffic around the larger metropolitan areas.
- E. SC Law Enforcement Division (SLED):
 - 1. In coordination with all ESF-13 support agencies, develop plans for the implementation of a secure area around the inundation area.
 - 2. Provide a central point of contact for law enforcement services assistance to local law enforcement agencies to access state police and SCARNG assets for security missions.

3. Provide specialized support assets to include:
 - a. Aviation support for evacuation (including public address system, rescue, and security operations).
 - b. Forensic support.
 - c. Investigative and crime scene services should the breach be determined to be by intentional means (terrorist acts).
 - d. Coordination of additional assets through activation of the State Law Enforcement Mutual Aid Plan (SLEMAP).

F. Department of Natural Resources (DNR):

1. In conjunction with ESFs 13 and 16, develop plans to clear the lake and downstream waterways in the inundation area.
2. Patrol the lake and recreational areas to prevent access downstream from the dam.

G. Department of Corrections (DOC):

1. Develop procedures to relocate prisoners if they are located in the inundation area
2. Assist local governments with prisoner transport.

H. Department of Social Services (DSS): In conjunction with American Red Cross (ARC) and the Salvation Army, identify shelters and develop plans to support shelter and mass feeding operations as the result of a failure at any dam in South Carolina.

I. Budget and Control Board, Division of Procurement Services, Materials Management Office: Develop plans to obtain bulk and bottled water to support the population outside the inundation area without water service.

J. The American Red Cross: Develop plans to support ESF-6 shelter and mass feeding operations.

K. The Salvation Army: Develop plans to support ESF-6 mass feeding operations

L. Counties:

1. Assist utility in the development of a public information program.
2. Provide an authorized spokesperson/representative to support public information activities at the JIC.
3. Ensure tone alert radios are issued to all schools in the inundation area.
4. In conjunction with SCEMD, develop evacuation areas.
5. In conjunction with DPS, coordinate evacuation and traffic management.
6. Identify populations with special transportation needs including schools, health care facilities, nursing homes, prisoner populations, and those without transportation. Develop corresponding plans to ensure timely evacuation.
7. Identify temporary housing locations to support estimated displaced county population.
8. Identify water distribution points to support the population outside the inundation area without water service.
9. Develop distribution plans for portable toilets to support the population outside the inundation area without water service.

M. Coordinating Instructions: All state agencies located in or near the inundation area will develop plans to relocate and ensure continuity of operations.

VI. ADMINISTRATION AND LOGISTICS

A. Authorities and References

1. South Carolina Emergency Operations Plan, 2006.
2. Utility Emergency Action Plan, as amended.

B. Plan Development and Maintenance

Site Specific Plans will be updated in the year prior to the FERC scheduled functional exercise conducted approximately every five years.

VII. DIRECTION AND CONTROL

A. State

1. State Emergency Operations Center (SEOC) is located at 2779 Fish Hatchery Road, West Columbia, SC.
2. Alternate SEOC is located at 10311 Wilson Boulevard, in Blythewood, SC 29016.

B. County Emergency Operations Center(s)

VIII. FEDERAL INTERFACE

A. FERC mandates that the following companies conduct dam safety drills and exercises on a scheduled or as warranted basis:

1. Duke Power Company
2. Progress Energy
3. SC Electric & Gas Company
4. Lockhart Power Company
5. Enel North American, Inc
6. Broad River Electric
7. Yadkin, Inc.
8. City of Abbeville (Lake Secession)
9. SC Public Service Authority (Santee Cooper Dams)
10. Georgia Power Company
11. SWJD (Spartanburg, Welford, Jackson, and Duncan), Inc.

B. The Savannah District Corps of Engineers regulates, and is responsible for all USACE Savannah River dams, diversion dikes and locks within their district. These include the J. Strom Thurmond Dam, Richard B. Russell Dam, Hartwell Dam, New Savannah Bluff Lock and Dam, and the Clemson Diversion Dikes. Plans are required to be exercised and updated annually.

- C. The Charleston District Corps of Engineers regulates and is responsible for the St. Stephens Dam in the Santee Cooper River Basin. The facility EAP is exercised and updated annually.

IX. TAB LISTING

- A. FERC Regulated Dams
 - 1. Investor-Owned
 - 2. Public-Owned
- B. USACE Regulated Dams
- C. Department of Health and Environmental Control Regulated Dams
- D. Site Specific Plans

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TAB 1, FERC REGULATED DAMS**A. Investor-Owned**

1. Progress Energy
 - a. Blewett Hydroelectric Plant (FERC Project No. 2206 NC)
 - b. Tillery Hydroelectric Plant (FERC Project No. 2206 NC)
2. South Carolina Electric & Gas Company
 - a. Fairfield Pumped Storage Facility (FERC Project No. 1894)
 - b. Parr Hydroelectric Plant (FERC Project No. 1894)
 - c. Saluda Hydroelectric Project (FERC Project No. 516)
 - d. Stevens Creek Hydroelectric Project (FERC Project No. 2535)
3. Duke Power Company
 - a. Bridgewater Hydro Station (in North Carolina) (FERC Project No. 2232)
 - b. Oxford Hydro Station (in North Carolina) (FERC Project No. 2232)
 - c. Cowans Ford Hydro Station (in North Carolina) (FERC Project No. 2232)
 - d. Mountain Island Hydro Station (in North Carolina) (FERC Project No. 2232)
 - e. Wylie Hydro Station (in North and South Carolina) (FERC Project No. 2232)
 - f. Fishing Creek Hydro Station (FERC Project No. 2232)
 - g. Great Falls/Dearborn Hydro Station (FERC Project No. 2232)
 - h. Rocky Creek/Cedar Creek Hydro Station (FERC Project No. 2232)

TAB 1, FERC REGULATED DAMS (Continued)

- i. Wateree Hydro Station (FERC Project No. 2232)
- j. Keowee Hydro Station (FERC Project No. 2503)
- k. Jocassee Hydro Station (FERC Project No. 2503)
- l. Gaston Shoals Hydro Station (FERC Project No. 2332)
- m. Ninety-Nine Islands Hydro Station (FERC Project No. 2331)
- n. Buzzard Roost Hydro Station (FERC Project No. 1267)
- o. Bad Creek Hydro Station (FERC Project No. 2740)
- 4. Cherokee Falls Hydro Project (Broad River Electric) (FERC Project No. 2880)
- 5. Lockhart Hydro Project (Lockhart Power Company) (FERC Project No. 2620-SC)
- 6. Enel North American, Inc. (Upper Pelzer Hydro Project) (FERC Project No. 10254-000)
- 7. Yadkin Hydro Station (Yadkin Inc. in North Carolina) (FERC No. 2197-NC)
- 8. Lake Secession Dam (City of Abbeville) (FERC Project No. 11286-000)
- 9. North Georgia Project (FERC Project No. 2354)
- 10. Spartanburg-Welford-Jackson-Duncan, Inc. (SWJD)
- B. Public-Owned - Santee Cooper (Project No. 199-037) (SC Public Service Authority)
 - 1. Santee North Dam
 - 2. Santee Spillway
 - 3. Santee South Dam
 - 4. Pinopolis East Dam

TAB 1, FERC REGULATED DAMS (Continued)

5. Pinopolis East Dam
6. Pinopolis Powerhouse
7. Pinopolis Lock
8. Pinopolis West Dam

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TAB 2, USACE REGULATED DAMS

- A. US Army COE (Savannah District)
 - 1. J. Strom Thurmond Dam
 - 2. Richard B. Russell Dam
 - 3. Hartwell Dam
 - 4. New Savannah Bluff Lock and Dam
 - 5. Clemson Diversion Dikes
- B. US Army COE (Charleston District)
 - St. Stephens Dam

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TAB 3, DEPARTMENT OF HEALTH AND ENVIRONMENTAL CONTROL REGULATED DAMS

There are approximately 2313 dams inspected by the Department of Health and Environmental Control (DHEC). A database of all DHEC regulated dams is maintained by DHEC and a copy of the database is also maintained at SCEMD. The dams fall into three hazard classification categories, as follows:

| HAZARD CLASSIFICATION | NO. OF DAMS South Carolina | HAZARD POTENTIAL |
|-------------------------------|---------------------------------------|---|
| Class I - High Hazard | 153 | Dams located where failure will likely cause loss of life or serious damage to homes, industrial and commercial facilities, important public utilities, main highways or railroads. |
| Class II - Significant Hazard | 473 | Dams located where failure will not likely cause loss of life but may damage homes, industrial and commercial facilities, secondary highways or railroads or cause service interruptions of important public utilities. |
| Class III - Low Hazard | About 1,668 | Dams located where failure would cause minimal property damage. Loss of life is not expected. |

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TAB 4 - SITE SPECIFIC PLANS (Published Separately)

1. The following Site Specific Plans have been completed and are updated annually:
 - a. Lake Murray Plan December 2004 (Revised) Tab 4A, Attachment D, Annex 25
 - b. Santee Dam Site Specific Plan, March 2005 Tab 4B, Attachment D, Annex 25
 - c. Additional site-specific plans are under development and will be added upon completion.
2. Site Specific Plan attachments include:
 - A – EAS Messages
 - B – News Releases
 - C – Evacuation Zones
 - D – Evacuation Routes and Associated Shelters
 - E – Traffic Management
 - F – Shelters
 - G – Executive Orders
 - H – Siren Locations
 - I – School Evacuation Plans
 - J – Communications Drill Procedures

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